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FY-66 Quarterly Report No. 2

PAR 233
30 Nov 65

SUBJECT: Zoom (6X to 60X) Projection Lens for Monochromatic Light

TASK/PROBLEM

1. Investigate the possibility of designing a 6X to 60X Zoom Projection Lens for Monochromatic Light.

DISCUSSION

2. The lens design specification was prepared in a conference between the optical engineer and lens designer. The specification was approved by the customer's technical monitor for this project on 29 Sept 65.

3. The lens design group made a study of the objective system using methods of first order gaussian optics. From this study, they now plan to attempt ray-trace designs of a three-part arrangement. The three parts, in the order of their position from the film gate to the viewing screen, are:

a. Ten-inch, f/2.8 collimator.

b. Two-inch to 20-inch Zoom Lens producing an aerial image of 1.0" diameter of a film gate area ranging from 5.0" to 0.05" diameter.

c. 30X projector lens to image the 1.0" diameter aerial image upon the 30-inch diameter screen.

4. In the last month of the quarter, there was little chargeable activity on this project due to the work schedule of the specialist lens designer who must do the design study.

PLANNED ACTIVITY

5. The next effort will be an attempt to provide detail designs of the system using the automatic computer program (ray-trace).

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